Since our focus this month has been dedicated to heart health, I had the pleasure of interviewing Dr. Joel Temple, a cardiologist at Nemours/Alfred I. DuPont Hospital for Children. Dr. Temple came to explain more about Long QT Syndrome and what this heart disorder entails.

**First off, can you explain to our readers what exactly Long QT Syndrome is?**

Dr. Temple: Well, you see, patients living with congenital Long QT Syndrome suffer from an isolated impairment of cardiac repolarization and exhibit certain forms of temporal repolarization instability. This basically means that in their heart it takes a longer recharging period or break than a normal heart does. This period then can cause the heartbeat to be delayed or even skip a beat.

**You said congenital, does that mean LQTS is a genetic disorder?**

Dr. Temple: Although some mutations causing LQTS can arise spontaneously in an individual, LQTS is mostly passed on from parent to child.

**How can an individual develop LQTS spontaneously?**

Dr. Temple: Mineral imbalances as a result of chronic vomiting, diarrhea, anorexia, or starvation can cause an individual to develop it, but multiple genetic factors play a role in this disorder since only certain individuals develop it under these circumstances.

**What are signs that indicate an individual has LQTS?**

Dr. Temple: Unfortunately, sometimes the first indication of LQTS is also the last. Many individuals who are unaware that they have this disorder first sign of LQTS is cardiac arrest which results in sudden death. LQTS can also cause dizziness, fainting spells or sudden loss of consciousness, or seizures.

**How does a doctor diagnose an individual with LQTS?**

Dr. Temple: There are many tests that doctors have to run but the most accurate test to find mutations of LQTS is an exercise stress test. However, there has been some controversy over running this kind of test since it can be somewhat of a risk. So the most common diagnosis comes from an electrocardiogram (ECG or EKG).

**Is there a cure for LQTS or are there any treatments available?**

Dr. Temple: There is no cure as of right now, but the most common treatment is beta-blockers such as propranolol. This lowers the heart rate and the strength of heart muscle contractions which reduces the oxygen requirement of the heart. Although since these effects only last a day or two after stopping the beta-blocker, this treatment usually lasts for a lifetime. There are other options though if an individual still exhibits symptoms while taking the beta-blockers. For instance, there are pacemakers or automatic implanted cardioverter defibrillators that can be surgically implanted to help regulate the heartbeat or even correct irregular contractions.